

General Accounting Office

Government-Wide Guidelines And Management Assistance Center Needed To Improve ADP Systems Development

In more than 57 reports in the past 10 years, GAO has identified management weaknesses in the design and development of large, complex Federal data processing systems. These weaknesses led to the waste of over \$300 million and systems which

- were not cost effective,
- did not meet agency needs,
- took too long to develop, or
- simply did not work.

The Director, Office of Management and Budget, should issue guidelines for a structured management approach to ADP systems development, require use of the guidelines throughout the Government, and set up a cost-reimbursable center to assist agency top management in planning, designing, acquiring, and evaluating large, complex ADP systems development projects. OMB agreed to consider GAO's recommendations.



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UNITED STATES GENERAL ACCOUNTING OFFICE
WASHINGTON, D.C. 20548

ACCOUNTING AND FINANCIAL
MANAGEMENT DIVISION

B-201441

The Honorable David A. Stockman
Director, Office of Management
and Budget

Dear Mr. Stockman:

In August 1979 we reported to the Chairman of the House Government Operations Committee on our review of the problems associated with developing large, complex data processing systems (FGMSD-79-27, app. I). We pointed out that Federal agencies have failed many times in this type of development because they have neither the proper guidance nor the necessary assistance for top management. Thus we recommended that a management assistance center be established and noted that we had developed a structured management approach for automatic data processing (ADP) systems development which we felt should be recommended to you.

OVERVIEW

The purpose of this letter is to (1) suggest a framework of principles and procedures for managing systems development (see app. II) which could be the basis for issuing Government-wide guidelines and (2) reiterate the need for a management assistance center for computer software and systems development.

PRIOR STUDIES REVEAL GOVERNMENT-WIDE PROBLEM

We have issued 57 reports during the last decade which identified the most common problems in the design and development of large, complex, Federal data processing systems. These systems

- were not cost effective,
- did not meet user needs,
- had prolonged development cycle and cost overruns, or
- simply did not work.

These problems were caused principally by

- inadequate planning,
- insufficient or ineffective management and user involvement,
- inadequate management approach for controlling systems development,
- inadequate control over changes to application programs, and
- inadequate budgeting and financial control.

These management deficiencies and resulting system problems have cost the Government a great amount of money, time, and effort. For example, we found that better management could have saved nearly \$300 million in just 10 of the systems reviewed. We believe these types of difficulties are indicative of a Government-wide problem that will continue because:

- There is no fully defined or standard structured framework for managing systems development within the Federal Government. Many agencies have their own management guidelines. However, we found several agencies whose development efforts were frequently unsuccessful because they had guidelines which were incomplete, not fully implemented, or not followed in actual practice.
- Some Federal agencies do not have (1) sufficient and effective top management involvement and direction and (2) a strong central office to facilitate agency-wide planning, coordination, and control of ADP resources.
- Top managers at many agencies do not have the required knowledge and expertise to effectively control systems development.

THE PROBLEM CONTINUES

Since June 1979, we have issued the following reports on systems development at various Federal agencies which show that the deficiencies and problems still exist.